CLAIMS

I claim:

1.   A method for connecting an emulated electronic device to a network operating at a speed higher than the emulated electronic device, the method comprising:

(a) receiving data packets from the network through a network interface;

(b) storing the data packets received from the network in a first buffer in memory;

(c) transmitting the data packets received from the network to the emulated electronic device through an emulation interface;

(d) receiving data packets from the emulated electronic device through the emulation interface; and

(e) transmitting the data packets received from the emulated electronic device to the network through the network interface.

2.   The method of Claim 1 further comprising storing the data packets received from the emulated electronic device in a second buffer in memory.

3.   The method of Claim 1, wherein the first buffer comprises a receive buffer and a transmit buffer, said method further comprises:

storing the data packets received from the network in the receive buffer; and

transferring the data packets stored in the receive buffer to the first transmit buffer.

4.   The method of Claim 2, wherein the second buffer comprises a receive buffer and a transmit buffer, said method further comprises:

storing the data packets received from the network in the receive buffer; and

transferring the data packets stored in the receive buffer to the transmit buffer.

5.   The method of Claim 1, further comprising changing the size of the first buffer at run time.

6. The method of Claim 1, further comprising discarding packets of data when the first buffer is full.

7. The method of Claim 1, further comprising keeping a record of the data packets received from the network, the data packets transmitted to the emulated electronic device, the data packets received from the emulated electronic device; and the data packets transmitted to the network.

8. The method of Claim 7, further comprising displaying the record on a screen.

9. The method of Claim 7, further comprising storing the record in a file.

10. The method of Claim 1, further comprising recording the throughput of the data packets.

11. The method of Claim 1 further comprising modifying the packets to make the packets suitable for receipt by the emulated device.

12. The method of Claim 11 wherein modifying includes removing a preamble from a data packet.

13. The method of Claim 1, wherein the receiving data packets from the network, and the storing the data packets received from the network and the transmitting the data packets received from the network are executed in a first thread and the receiving data packets from the emulated electronic device and the transmitting the data packets received from the emulated electronic device are executed in a second thread.

14. The method of Claim 1, wherein the receiving data packets from the network and the storing of data packets received from the network are executed in a first thread, the transmitting the data packets received from the network is executed in a second thread, the receiving data packets from the emulated electronic device and the transmitting the data packets received from the emulated electronic device are executed in a third thread.

15. The method of Claim 1, wherein the receiving data packets from the network and the storing of data packets received from the network are executed in a first thread, the transmitting the data packets received from the network is executed in a second thread, the

receiving data packets from the emulated electronic device is executed in a third thread, and the transmitting the data packets received from the emulated electronic device is executed in a fourth thread.

16.   The method of Claim 2, wherein the receiving data packets from the network and the storing of data packets received from the network are executed in a first thread, the transmitting the data packets received from the network is executed in a second thread, the receiving data packets from the emulated electronic device and storing the data packets received from the emulated electronic device are executed in a third thread, and the transmitting the data packets received from the emulated electronic device is executed in a fourth thread.

17   A method for testing a system for connecting an emulated electronic device to a network, the method comprising:

generating a data packet in a first computer;

transmitting the data packet, from the first computer, to a second computer;

transmitting back the data packet received by the second computer to the first computer;

comparing the data packet received by the first computer with the data packet that was sent by the first computer; and

reporting an error if the data packet received by the first computer does not match the data packet that was sent by the first computer.

18.   A method for testing a system for connecting an emulated electronic device to a network, the method comprising:

generating a data packet in a first computer;

from the first computer, transmitting the data packet to a second computer;

at the second computer, storing the data received from the first computer in a first buffer in the second computer;

at the second computer, transmitting the data stored in the first buffer to a third computer;

at the third computer, transmitting back the data packet received to the second computer;

at the second computer, transmitting the data received from the third computer to the first computer;

at the first computer, comparing the data packet received with the data packet that was sent; and

reporting an error if the data packet received by the first computer does not match the data packet sent by the first computer.

19.   An apparatus for connecting an electronic device to a network running at a speed higher than the emulated electronic device, the apparatus comprising:

a computer having a memory;

a first buffer in the memory; and

computer instructions executable by the computer for:

receiving data packets from the network;

storing data packets received from the network in the first buffer;

transmitting the data packets received from the network to the emulated electronic device at a slower speed;

receiving the data packets from the emulated electronic device; and

transmitting the data packets received from the emulated electronic device to the network at a higher speed.

20.   The apparatus of Claim 19 further comprising:

a parallel port card;

a parallel port cable to connect the computer to the electronic device; and

an ethernet cable to connect the computer to the network.

21.   The apparatus of Claim 19, further comprising:

a bi-directional interface card;

a bi-directional interface cable; and

an Ethernet cables to connect the computer to the network.

22.   A computer readable medium having computer instructions to perform in a
computer:

receiving data packets from the network;

storing data packets received from the network in a first buffer;

transmitting the data packets received from the network to the emulated
electronic device at a slower speed;

receiving the data packets from the emulated electronic device; and

transmitting the data packets received from the emulated electronic device to
the network at a higher speed.

23.   The method of Claim 2, further comprising discarding data packets when the
second buffer is full.

24.   The method of Claim3, further comprising discarding data packets when either
one of the receive buffer and the transmit buffer is full.

25.   The method of Claim 4, further comprising discarding data packets when
either one of the receive buffer and the transmit buffer is full.